

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Examiner: Daniel Lawson Greene

Group Art Unit: 3694

In re Application of:  
Kirkland D. Broach et al.

Serial No. 10/751,349

Filed: January 5, 2004

NUCLEAR FUEL ASSEMBLY DEBRIS  
FILTER BOTTOM NOZZLE

Attorney Docket No. ARF-2004-003

**REPLY BRIEF**

August 24, 2007

Commissioner for Patents  
MAIL STOP APPEAL BRIEF - PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

It is believed that Appellants have already addressed in Appellants' Brief on Appeal all the points raised by the Examiner in the Examiner's Answer. It appears that there is an honest disagreement as to what the references actually teach and the breadth of claim coverage that Appellants are entitled to, which is the reason for this appeal. There is no need to restate the arguments that Appellants have already offered in Appellants' Brief on Appeal, however, some points of clarification are believed to be instructive. On Page 7 of the Examiner's Answer, the Examiner relies upon various figures of the *Johansson, et al.* references as showing multiple inlet chamfers. To support that interpretation the Examiner is relying upon the horizontal lines at the inlet of the flow-through holes of the lower tie-plate shown in Figure 5 of the 634 Patent, Figures 13, 15 and 17 of the 640 Patent, Figure 5 of the 650 Patent and Figure 5E of the 621 Patent. With the exception of the latter which shows a single inlet chamfer the others employ the horizontal lines as shading to create a curved affect. You will note, in many cases, the horizontal lines do not extend completely across the inlet as in Figure 13 of the 640 Patent. Even when the horizontal lines extend across the inlet, as shown in Figure 5 of the 634 Patent, a reading of the corresponding description of the figures in the specification does not support that interpretation. For example, the description

set forth in Column 8 of the 634 Patent, starting at line 14, makes it clear that the reference is not illustrating or describing a series of a plurality of straight, discrete, adjacent chamfers at the inlet. The cited section in Column 8 states:

Referring to Figures 5 and 6, the edges 45 of the openings 42 opening through the lower surface 32 of the tie plate are radiused to provide a smooth, non-turbulent transitional flow from the inlet plenum of the tie plate assembly into the opening 42.

On page 10 of the Examiner's Answer, the Examiner provides an abbreviated citation from *Tucker, et al.*, that may leave the impression that *Tucker, et al.* teaches both the chamfered inlet and the chamfered outlet. A full reading of the section reveals that *Tucker, et al.* is merely talking about adjacent portions of the inlet one upstream and the other downstream of the other. Furthermore, the Examiner has cited several sections supporting the implication that they teach a chamfered outlet, however, appellants have been unable to find such a teaching in any of the sections cited by the Examiner.

Furthermore, the Examiner has made the point that the references cannot rightfully be dissected separately and have to be considered for what their combined teachings might suggest. However, their combined teachings cannot teach or suggest something that neither of the references separately infer, teach or suggest.

Accordingly, appellants rely upon their brief for rebutting the arguments made by the Examiner in the Examiner's Answer. Favorable consideration is therefore requested.

Respectfully submitted,



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